

Clean Set of All Pending Claims

Insert date of Submission (May 19, 2003)

7. (Amended) A recombinant DNA molecule having a gene sequence encoding a hormone receptor molecule, wherein said hormone receptor molecule is a FSH receptor and wherein said DNA molecule is capable of hybridizing at 42°C in 20% formamide to a nucleic acid sequence from nucleotide 122 to and including nucleotide 2155 of SEQ ID NO:5.
8. The recombinant molecule of claim 7 wherein said molecule is a replicatable vector.
9. The vector of claim 8 wherein the nucleic acid molecule is DNA free of introns.
16. (Amended) The recombinant molecule of claim 8 wherein said molecule expresses said hormone receptor molecule when present in a host cell.
17. The recombinant molecule of claim 16 wherein said host cell is a eukaryotic cell.
18. The recombinant molecule of claim 17 wherein said eukaryotic cell is a yeast or a mammalian cell.
19. The recombinant molecule of claim 16 wherein said host cell is a prokaryotic cell.
20. The recombinant molecule of claim 19 wherein said prokaryotic cell is a E.coli cell.
28. The recombinant molecule of claim 7 wherein said gene sequence encodes the FSH hormone receptor molecule.

42. A method for producing a hormone receptor which comprises:

- (a) constructing a vector that includes a gene sequence which encodes said hormone receptor;
- (b) transforming a host cell with said vector comprising the recombinant DNA molecule of claim 7;
- (c) culturing said transformed cell in a culture medium under conditions sufficient for said cell to express said gene sequences; and
- (d) recovering said expressed hormone receptor; wherein said hormone receptor is a FSH receptor.

43. The method of claim 42 wherein said expressed hormone receptor is secreted into said culture medium by said transformed cell, and wherein said expressed hormone receptor is recovered from said culture medium.

45. The method of claim 42 wherein said hormone receptor is the FSH receptor SEQ ID NO:6 or SEQ ID NO:7.

47. The method of claim 42 wherein said transformed cell is a eukaryotic cell.

48. The method of claim 42 wherein said transformed cell is a procaryotic cell.

52. The recombinant molecule of claim 28 wherein said molecule comprises a replicatable vector.

53. The vector of claim 52 wherein said molecule is DNA free of introns.

54. (Amended) The vector of claim 53 wherein said molecule is capable of hybridizing at 42°C in 20% formamide with the DNA sequence from nucleotide 122 to and including nucleotide 2155 of SEQ ID NO:5.

55. (Amended) The vector of claim 54 wherein said molecule is the DNA sequence encoding the FSH receptor of SEQ ID NO:6 or SEQ ID NO:7.

56. A host cell containing the vector of claim 54.

57. A host cell containing the vector of claim 55.

58. The host cell of claim 56 that is a eukaryotic cell.

59. The host cell of claim 56 that is a bacteria cell.

60. (New) The recombinant DNA molecule of claim 7, wherein said DNA molecule is capable of hybridizing at 50°C in 50% formamide to a nucleic acid sequence from nucleotide 122 to and including nucleotide 2155 of SEQ ID NO:5.

61. (New) A method for producing a hormone receptor which comprises:

(a) constructing a vector that includes a gene sequence which encodes said hormone receptor;

(b) transforming a host cell with said vector comprising the recombinant DNA molecule of claim 60;

(c) culturing said transformed cell in a culture medium under conditions sufficient for said cell to express said gene sequences; and

(d) recovering said expressed hormone receptor; wherein said hormone receptor is a FSH receptor.

62. (New) The vector of claim 53 wherein said molecule is capable of hybridizing at 50°C in 50% formamide with the DNA sequence from nucleotide 122 to and including nucleotide 2155 of SEQ ID NO:5.